

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM  
WASTE DISCHARGE PERMIT No. WA-002407-4

State of Washington  
DEPARTMENT OF ECOLOGY  
Northwest Regional Office  
3190 – 160<sup>th</sup> Avenue SE  
Bellevue, WA 98008-5452

In compliance with the provisions of  
The State of Washington Water Pollution Control Law  
Chapter 90.48 Revised Code of Washington  
and  
The Federal Water Pollution Control Act  
(The Clean Water Act)  
Title 33 United States Code, Section 1251 et seq.

**City of Mount Vernon**  
**PO Box 809**  
**Mount Vernon, WA 98273**

Plant Location:  
1401 Britt Road  
Mount Vernon, WA 98273

Old Discharge Location - Outfall #001:  
Latitude: 48° 24' 48" N  
Longitude: 122° 20' 45" W

New Discharge Location - Outfall #004:  
Latitude: 48° 24' 50" N  
Longitude: 122° 20' 43" W

Plant Type:  
Secondary biological treatment: Activated sludge with anoxic nitrification/denitrification

Receiving Water:  
Skagit River

Water Body I.D. No.:  
WA-03-1010

CSO Discharge - Outfall #002:  
Latitude: 48° 24' 50" N  
Longitude: 122° 20' 36" W

CSO Discharge - Outfall #003:  
Latitude: 48° 25' 17" N  
Longitude: 122° 20' 15" W

is authorized to discharge in accordance with the Special and General Conditions that follow.

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Kevin C. Fitzpatrick  
Water Quality Section Manager  
Northwest Regional Office  
Washington State Department of Ecology

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### SUMMARY OF PERMIT REPORT SUBMITTALS

Refer to the Special and General Conditions of this permit for additional submittal requirements.

Permit Section	Submittal	Frequency	First Submittal Date
S3.A.	Discharge Monitoring Report	Monthly	December 15, 2005
S3.A.	Priority Pollutant – Metals	Annually	December 15, 2006
S3.A.	Priority Pollutant – Organics	Annually	December 15, 2006
S3.E.	Noncompliance Notification	As necessary	
S4.B.	Plans for Maintaining Adequate Capacity	As necessary	
S4.D.	Notification of New or Altered Sources	As necessary	
S5.G.	Operations and Maintenance Manual Update or Review Confirmation Letter	1/permit cycle	November 1, 2006
S5.G.	Operations and Maintenance Manual Revision	1/permit cycle	June 1, 2009
S6.D.	Industrial User Survey	1/permit cycle	July 1, 2009
S8.A.	Effluent Mixing Plan of Study	1/permit cycle	Thirty (30) days prior to study, no later than August 15, 2009
S8.B.	Effluent Mixing Report	1/permit cycle	March 1, 2010
S9.A.	Acute Toxicity Characterization Data	2/permit cycle	March 1, 2006 and October 1, 2006
S9.C.	Acute Toxicity Compliance Monitoring Reports	As necessary	
S9.D.	Acute Toxicity: “Causes and Preventative Measures for Transient Events.”	As necessary	
S9.D.	Acute Toxicity TI/TRE Plan	As necessary	
S9.E.	Acute Toxicity Effluent Characterization with Permit Renewal Application	2/permit cycle	April 25, 2010 (for summer sampling to be completed by August 25, 2009, and winter sampling to be completed by February 25, 2010)
S10.A.	Chronic Toxicity Characterization Data	2/permit cycle	March 1, 2006 and October 1, 2006
S10.C.	Chronic Toxicity Compliance Monitoring Reports	As necessary	
S10.D.	Chronic Toxicity: “Causes and Preventative Measures for Transient Events.”	As necessary	
S10.D.	Chronic Toxicity TI/TRE Plan	As necessary	

<b>Permit Section</b>	<b>Submittal</b>	<b>Frequency</b>	<b>First Submittal Date</b>
S10.E.	Chronic Toxicity Effluent Characterization with Permit Renewal Application	2/permit cycle	April 25, 2010 (for summer sampling to be completed by May 25, 2009, and winter sampling to be completed by November 25, 2009)
S11.A.	Sediment Baseline Sampling and Analysis Plan	1/permit cycle	December 1, 2006
S11.B.	Sediment Data Report	1/permit cycle	December 1, 2007
S12.B.	Combined Sewer Overflow Report	Annually	April 1, 2006
G1.	Notice of Change in Authorization	As necessary	
G4.	Reporting Planned Changes	As necessary	
G5.	Engineering Report for Construction or Modification Activities	As necessary	
G7.	Application for Permit Renewal	1/permit cycle	April 25, 2010
G21.	Reporting Anticipated Noncompliance	As necessary	
G22.	Reporting Other Information	As necessary	

## SPECIAL CONDITIONS

### S1. DISCHARGE LIMITATIONS

#### A. Effluent Limitations

All discharges and activities authorized by this permit shall be consistent with the terms and conditions of this permit. The discharge of any of the following pollutants more frequently than, or at a level in excess of, that identified and authorized by this permit shall constitute a violation of the terms and conditions of this permit.

1. Discharges from 24" Side-bank Outfall: Beginning on the effective date of this permit and lasting until the Department has been notified that construction of the new 42" mid-channel outfall has been completed, the Permittee is authorized to discharge municipal wastewater at the permitted location subject to complying with the following limitations:

<b>EFFLUENT LIMITATIONS<sup>a</sup>: OUTFALL # 001 (Old 24" Side-bank Outfall)<sup>b</sup></b>		
<b>Parameter</b>	<b>Average Monthly</b>	<b>Average Weekly</b>
Biochemical Oxygen Demand (5-day)	30 mg/L, 1401 lb/day 85% removal of influent BOD	45 mg/L, 2102 lb/day
Total Suspended Solids	30 mg/L, 1401 lb/day 85% removal of influent TSS	45 mg/L, 2102 lb/day
Fecal Coliform Bacteria	200/100 mL	400/100 mL
pH	Daily minimum is equal to or greater than 6.2 and the daily maximum is less than or equal to 9.0	
<b>Parameter</b>	<b>Average Monthly</b>	<b>Maximum Daily<sup>c</sup></b>
Total Residual Chlorine	0.04 mg/L	0.09 mg/L
Copper	10.2 µg/L	20.5 µg/L
Bis(2-ethylhexyl) phthalate	46.8 µg/L	103.4 µg/L
<sup>a</sup> The average monthly and weekly effluent limitations are based on the arithmetic mean of the samples taken with the exception of fecal coliform, which is based on the geometric mean.		
<sup>b</sup> Discharge limits shall remain in effect until the new mid-channel outfall has been completed.		
<sup>c</sup> The maximum daily effluent limitation is defined as the highest allowable daily discharge. The daily discharge means the discharge of a pollutant measured during a calendar day. Measurement of the maximum daily discharge in discrete samples is the highest measurement of the pollutant over the day.		

Once the new outfall has been completed, the Permittee will retain authority to discharge from the current outfall only during emergency or maintenance situations. Such discharges will be subject to the limitations listed above. Any discharges from the current outfall after completion of the new outfall shall, whenever practical, require prior written notification to the Department of the circumstances necessitating the change in discharge location.

2. Discharges from New 48" Mid-channel Outfall:

Beginning on the date the Department receives written notification that the new 48" mid-channel outfall has been completed and lasting through the remaining term of this permit, the Permittee is authorized to discharge municipal wastewater at the permitted location subject to complying with the following limitations:

EFFLUENT LIMITATIONS <sup>a</sup> : OUTFALL # 004 (New 48” Mid-channel Outfall) <sup>b</sup>		
Parameter	Average Monthly	Average Weekly
Biochemical Oxygen Demand (5-day)	30 mg/L, 1401 lb/day 85% removal of influent BOD	45 mg/L, 2102 lb/day
Total Suspended Solids	30 mg/L, 1401 lb/day 85% removal of influent TSS	45 mg/L, 2102 lb/day
Fecal Coliform Bacteria	200/100 mL	400/100 mL
Parameter	Average Monthly	Maximum Daily <sup>c</sup>
Total Residual Chlorine <sup>d</sup>	0.5 mg/l	0.75 mg/l
pH	Daily minimum is equal to or greater than 6.0 and the daily maximum is less than or equal to 9.0	
<sup>a</sup> The average monthly and weekly effluent limitations are based on the arithmetic mean of the samples taken with the exception of fecal coliform, which is based on the geometric mean.		
<sup>b</sup> Discharge limits shall apply beginning on the day the Department receives written notification that construction of the new outfall has been completed.		
<sup>c</sup> The maximum daily effluent limitation is defined as the highest allowable daily discharge. The daily discharge means the discharge of a pollutant measured during a calendar day. Measurement of the maximum daily discharge in discrete samples is the highest measurement of the pollutant over the day.		

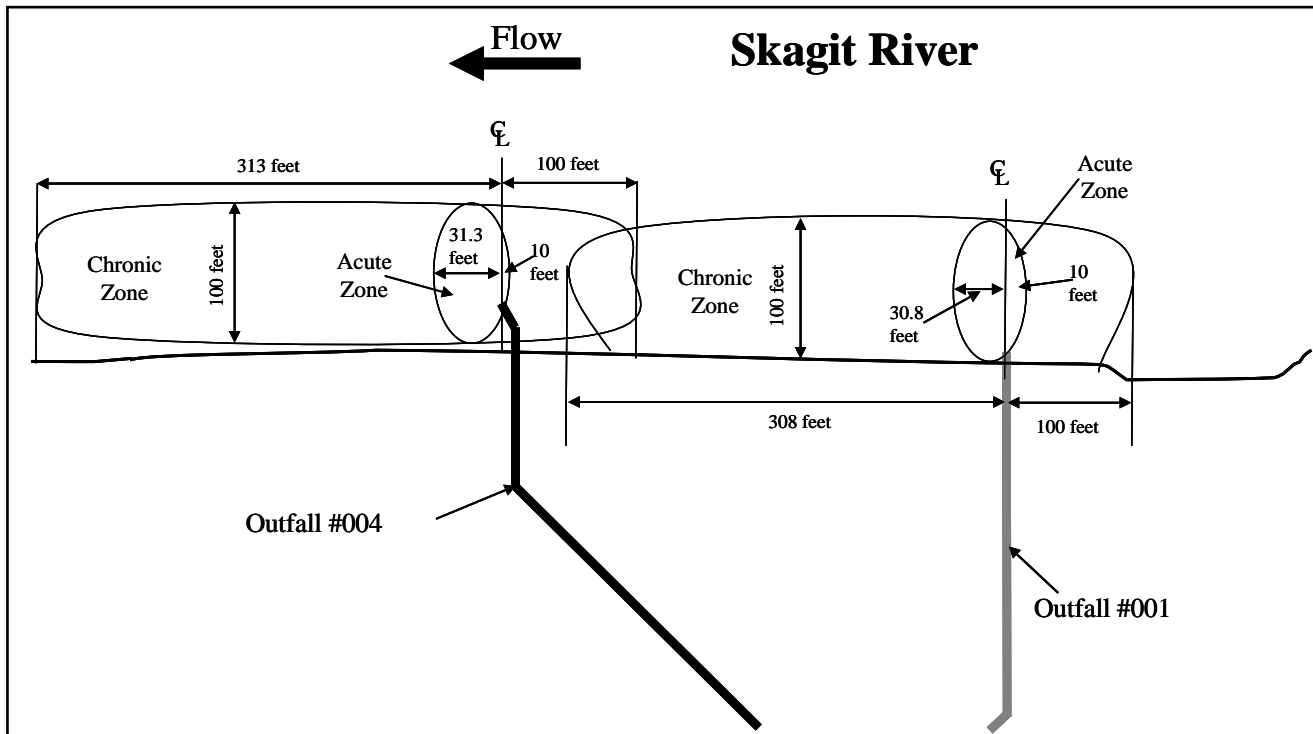
B. Mixing Zone Descriptions

Outfall #001 consists of a 24-inch ductile iron pipe that discharges at the river bank edge at a depth of 8 feet. The outfall is not equipped with a diffuser. Outfall #004 will consist of a 48-inch pipe equipped with a 36-inch Tideflex valve. The terminus will be located at a depth of 13 feet and located in the deepest part of the river channel's cross section (thalweg). The mixing zones for the two discharges shall conform to the following dimensions and limitations:



1. The acute and chronic mixing zones extend vertically from the outfall to an upper boundary at the water surface. The most restrictive upper boundary occurs at Mean Lower Low Water (MLLW) at 7Q10 river flow.
2. The allowable chronic mixing zone shall not extend in the downstream direction from the discharge port greater than three hundred feet plus the depth of water over the discharge port, or extend upstream for a distance over one hundred feet and shall not occupy more than 25% of the river's width at 7Q10 flow. The mixing zone shall not utilize more than 25% of the flow at 7Q10 conditions.
3. The allowable acute mixing zone shall be no more than 10% of the length of the chronic mixing zone in the upstream and downstream directions and shall not occupy more than 25% of the river's width at 7Q10 flow. The mixing zone shall not utilize more than 2.5% of the flow at 7Q10 conditions.
4. The minimum dilution at the edge of the chronic mixing zone shall be 26:1 for the outfall #001 and 188:1 for outfall #004.
5. The minimum dilution at the edge of the zone of acute mixing zone shall be 4.5:1 for outfall #001 and 16:1 for outfall #004.

Approximate dilution zones for the current and new outfalls are illustrated below:



(not to scale)

Secondary treated and disinfected effluent will be discharged initially via outfall #001. Upon completion of outfall #004, discharge through outfall #001 will terminate and discharge through outfall #004 will begin. Occasional discharges through outfall #001 will be allowed during the remaining term of this permit when necessitated for emergency or maintenance situations. When practical, any occasional discharges through outfall #001 shall require prior written notification to the Department regarding the circumstances requiring the use of outfall #001.

## S2. MONITORING REQUIREMENTS

### A. Monitoring Schedule

The Permittee shall monitor in accordance with the following schedule:

Category	Parameter	Units	Sample Point	Minimum Sampling Frequency	Sample Type
Wastewater Influent	Flow	MGD	Influent	Continuous	Recording
“	BOD <sub>5</sub>	mg/l	Influent	3/week	24-hour composite
“	TSS	mg/l	Influent	3/week	24-hour composite
Wastewater Effluent	BOD <sub>5</sub>	mg/l	Final Effluent	3/week	24-hour composite
“	TSS	mg/l	Final Effluent	3/week	24-hour composite
“	pH	Standard Units	Final Effluent	Daily	Grab
“	Residual Chlorine	mg/l	Final Effluent	5/week	Grab
“	Fecal Coliform	Org./100 ml	Final Effluent	5/week	Grab
“	Ammonia as N	mg/L	Final Effluent	1/week	24-hour composite
“	Copper (Outfall #001)	µg/L	Final Effluent	2/month, at least one week apart	24-hour composite
“	Bis(2-ethylhexyl) phthalate (Outfall #001)	µg/L	Final Effluent	2/month, at least one week apart	24-hour composite
“	Dissolved oxygen, total Kjeldahl nitrogen, NO <sub>3</sub> +NO <sub>2</sub> -N, oil & grease, total phosphorus, total dissolved solids	mg/l	Final Effluent	3/permit cycle (To be submitted with the next application for permit renewal)	

Category	Parameter	Units	Sample Point	Minimum Sampling Frequency	Sample Type
Effluent	Priority Pollutant Scan - Metals <sup>1</sup>		Final Effluent	1/year	24-hour composite
Effluent	Priority Pollutant Scan - Organics (Acid Extractable, Base-Neutral, Pesticides, Polychlorinated-Biphenyles)		Final Effluent	1/year	24-hour composite
Effluent	Priority Pollutant Scan - Volatile Organics		Final Effluent	1/year	Grab
Effluent	Acute Whole Effluent Toxicity - Characterization compliance testing. See Section S9.A.		Final Effluent	2/year in the first 12 months of the permit. 2/year in the last year of the permit*	24-hour composite
Effluent	Chronic Whole Effluent Toxicity – Characterization. See Section S10.A.		Final Effluent	2/year in the first 12 months of the permit. 2/year in the last year of the permit.*	24-hour composite
*To be submitted with the next application for permit renewal					
Sediment	Toxicity		Region near current outfall	1/permit cycle	See Condition S11

<sup>1</sup> Priority pollutant metals shall include: Antimony, Arsenic, Beryllium, Cadmium, Chromium, Copper, Lead, Nickel, Selenium, Silver, Thallium, and Zinc. Analysis shall be by Standard Method Number 200.7 - Inductively Coupled Plasma (ICP) or other method that provides lower detection levels than ICP.

#### B. Sampling and Analytical Procedures

Samples and measurements taken to meet the requirements of this permit shall be representative of the volume and nature of the monitored parameters, including representative sampling of any unusual discharge or discharge condition, including bypasses, upsets, and maintenance-related conditions affecting effluent quality.

Sampling and analytical methods used to meet the monitoring requirements specified in this permit shall conform to the latest revision of the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136 or to the latest revision of *Standard Methods for the Examination of Water and Wastewater* (APHA), unless otherwise specified in this permit or approved in writing by the Department of Ecology (Department).

C. Flow Measurement

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the quantity of monitored flows. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements is consistent with the accepted industry standard for that type of device. Frequency of calibration shall be in conformance with manufacturer's recommendations and at a minimum frequency of at least one calibration per year. Calibration records shall be maintained for at least three years.

D. Laboratory Accreditation

All monitoring data required by the Department shall be prepared by a laboratory registered or accredited under the provisions of, *Accreditation of Environmental Laboratories*, Chapter 173-50 WAC. Flow, temperature, settleable solids, conductivity, pH, and internal process control parameters are exempt from this requirement. Conductivity and pH shall be accredited if the laboratory must otherwise be registered or accredited. The Department exempts crops, soils, and hazardous waste data from this requirement pending accreditation of laboratories for analysis of these media.

**S3. REPORTING AND RECORDKEEPING REQUIREMENTS**

The Permittee shall monitor and report in accordance with the following conditions. The falsification of information submitted to the Department shall constitute a violation of the terms and conditions of this permit.

A. Reporting

The first monitoring period begins on the effective date of the permit. Monitoring results shall be submitted monthly. Monitoring data obtained during each monitoring period shall be summarized, reported, and submitted on a discharge monitoring report (DMR) form provided, or otherwise approved, by the Department. DMR forms shall be received by the Department no later than the 15<sup>th</sup> day of the month following the completed monitoring period, unless otherwise specified in this permit. The report(s) shall be sent to the Department of Ecology Northwest Regional Office, 3190 - 160<sup>th</sup> Avenue SE, Bellevue, Washington 98008-5452.

Discharge monitoring report forms must be submitted monthly whether or not the facility was discharging. If there was no discharge during a given monitoring period, submit the form as required with the words "no discharge" entered in place of the monitoring results.

Priority pollutant analysis data shall be submitted no later than forty-five (45) days following the monitoring period. Unless otherwise specified, all toxicity test data shall be submitted within sixty (60) days after the sample date. The first priority pollutant analyses shall be submitted by December 15, 2006, and annually thereafter.

All laboratory reports providing data for organic and metal parameters shall include the following information: sampling date, sample location, date of analysis, parameter name, CAS number, analytical method/number, method detection limit (MDL), laboratory practical quantitation limit (PQL), reporting units, and concentration detected.

B. Records Retention

The Permittee shall retain records of all monitoring information for a minimum of three (3) years. Such information shall include all calibration and maintenance records and all original recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by the Department.

C. Recording of Results

For each measurement or sample taken, the Permittee shall record the following information: (1) the date, exact place, method, and time of sampling or measurement; (2) the individual who performed the sampling or measurement; (3) the dates the analyses were performed; (4) the individual who performed the analyses; (5) the analytical techniques or methods used; and (6) the results of all analyses.

D. Additional Monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by this permit using test procedures specified by Condition S2 of this permit, then the results of such monitoring shall be included in the calculation and reporting of the data submitted in the Permittee's DMR.

E. Noncompliance Notification

In the event the Permittee is unable to comply with any of the terms and conditions of this permit due to any cause, the Permittee shall:

1. Immediately take action to stop, contain, and cleanup unauthorized discharges or otherwise stop the noncompliance, correct the problem and, if applicable, repeat sampling and analysis of any noncompliance immediately and submit the results to the Department within thirty (30) days after becoming aware of the violation.
2. Immediately notify the Department of the failure to comply.

3. Submit a detailed, written report to the Department within thirty (30) days (five [5] days for upsets, bypasses, and spills), unless requested earlier by the Department. The report shall contain a description of the noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

F. Maintaining a Copy of This Permit

A copy of this permit must be kept at the treatment plant and be made available upon request to the public or Ecology inspectors.

#### **S4. FACILITY LOADING**

A. Design Criteria

Flows or waste loadings of the following design criteria for the permitted treatment facility shall not be exceeded:

Average wet season flow for the maximum month:	<u>5.6 MGD</u>
BOD <sub>5</sub> loading for maximum month:	<u>8130 lb/day</u>
TSS loading for maximum month:	<u>7800 lb/day</u>

B. Plans for Maintaining Adequate Capacity

The Permittee shall submit to the Department a plan and a schedule for continuing to maintain capacity when:

1. The actual flow or waste load reaches 85 percent of any one of the design criteria in S4.A for three consecutive months, or
2. When the projected increase would reach design capacity within five years,

whichever occurs first. If such a plan is required, it shall contain a plan and schedule for continuing to maintain capacity. The capacity as outlined in this plan must be sufficient to achieve the effluent limitations and other conditions of this permit. This plan shall address any of the following actions or any others necessary to meet the objective of maintaining capacity.

1. Analysis of the present design including the introduction of any process modifications that would establish the ability of the existing facility to achieve the effluent limits and other requirements of this permit at specific levels in excess of the existing design criteria specified in paragraph A above.

2. Reduction or elimination of excessive infiltration and inflow of uncontaminated ground and surface water into the sewer system.
3. Limitation on future sewer extensions or connections or additional waste loads.
4. Modification or expansion of facilities necessary to accommodate increased flow or waste load.
5. Reduction of industrial or commercial flows or waste loads to allow for increasing sanitary flow or waste load.

Engineering documents associated with the plan must meet the requirements of WAC 173-240-060, "Engineering Report," and be approved by the Department prior to any construction. If the Permittee intends to apply for state or federal funding for the design or construction of a facility project, the plan must also meet the requirements of a "Facility Plan" as described in 40 CFR 35.2030. The plan shall specify any contracts, ordinances, methods for financing, or other arrangements necessary to achieve this objective.

C. Duty to Mitigate

The Permittee is required to take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

D. Notification of New or Altered Sources

The Permittee shall submit written notice to the Department whenever any new discharge or a substantial change in volume or character of an existing discharge into the POTW is proposed which: (1) would interfere with the operation of, or exceed the design capacity of, any portion of the POTW; (2) is not part of an approved general sewer plan or approved plans and specifications; or (3) would be subject to pretreatment standards under 40 CFR Part 403 and Section 307(b) of the Clean Water Act. This notice shall include an evaluation of the POTW's ability to adequately transport and treat the added flow and/or waste load, the quality and volume of effluent to be discharged to the POTW, and the anticipated impact on the Permittee's effluent [40 CFR 122.42(b)].

## **S5. OPERATION AND MAINTENANCE**

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems, which are installed by a Permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

A. Certified Operator

An operator certified for at least a Class III plant by the State of Washington shall be in responsible charge of the day-to-day operation of the wastewater treatment plant. An operator certified for at least a Class II plant shall be in charge during all regularly scheduled shifts.

B. O & M Program

The Permittee shall institute an adequate operation and maintenance program for the entire sewage system. Maintenance records shall be maintained on all major electrical and mechanical components of the treatment plant, as well as the sewage system and pumping stations. Such records shall clearly specify the frequency and type of maintenance recommended by the manufacturer and shall show the frequency and type of maintenance performed. These maintenance records shall be available for inspection at all times.

C. Short-term Reduction

If a Permittee contemplates a reduction in the level of treatment that would cause a violation of permit discharge limitations on a short-term basis for any reason, and such reduction cannot be avoided, the Permittee shall give written notification to the Department, if possible, thirty (30) days prior to such activities, detailing the reasons for, length of time of, and the potential effects of the reduced level of treatment. This notification does not relieve the Permittee of its obligations under this permit.

D. Electrical Power Failure

The Permittee is responsible for maintaining adequate safeguards to prevent the discharge of untreated wastes or wastes not treated in accordance with the requirements of this permit during electrical power failure at the treatment plant and/or sewage lift stations either by means of alternate power sources, standby generator, or retention of inadequately treated wastes.

E. Prevent Connection of Inflow

The Permittee shall strictly enforce their sewer ordinances and not allow the connection of inflow (roof drains, foundation drains, etc.) to the sanitary sewer system.

F. Bypass Procedures

Bypass, which is the intentional diversion of waste streams from any portion of a treatment facility, is prohibited, and the Department may take enforcement action against a Permittee for bypass unless one of the following circumstances (1, 2, or 3) is applicable.

1. Bypass for essential maintenance without the potential to cause violation of permit limits or conditions.



Bypass is authorized if it is for essential maintenance and does not have the potential to cause violations of limitations or other conditions of this permit, or adversely impact public health as determined by the Department prior to the bypass. The Permittee shall submit prior notice, if possible, at least ten (10) days before the date of the bypass.

2. Bypass which is unavoidable, unanticipated, and results in noncompliance of this permit.

This bypass is permitted only if:

- a. Bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.
  - b. There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment downtime (but not if adequate backup equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance), or transport of untreated wastes to another treatment facility.
  - c. The Department is properly notified of the bypass as required in Condition S3.E of this permit.
3. Bypass which is anticipated and has the potential to result in noncompliance of this permit.

The Permittee shall notify the Department at least thirty (30) days before the planned date of bypass. The notice shall contain: (1) a description of the bypass and its cause; (2) an analysis of all known alternatives which would eliminate, reduce, or mitigate the need for bypassing; (3) a cost-effectiveness analysis of alternatives including comparative resource damage assessment; (4) the minimum and maximum duration of bypass under each alternative; (5) a recommendation as to the preferred alternative for conducting the bypass; (6) the projected date of bypass initiation; (7) a statement of compliance with SEPA; (8) a request for modification of water quality standards as provided for in WAC 173-201A-110, if an exceedance of any water quality standard is anticipated; and (9) steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.

For probable construction bypasses, the need to bypass is to be identified as early in the planning process as possible. The analysis required above shall be considered during preparation of the engineering report or facilities plan and plans and specifications and shall be included to the extent practical. In cases where the probable need to bypass is determined early, continued analysis is necessary up to and including the construction period in an effort to minimize or eliminate the bypass.

The Department will consider the following prior to issuing an administrative order for this type bypass:

- a. If the bypass is necessary to perform construction or maintenance-related activities essential to meet the requirements of this permit.
- b. If there are feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment down time, or transport of untreated wastes to another treatment facility.
- c. If the bypass is planned and scheduled to minimize adverse effects on the public and the environment.

After consideration of the above and the adverse effects of the proposed bypass and any other relevant factors, the Department will approve or deny the request. The public shall be notified and given an opportunity to comment on bypass incidents of significant duration, to the extent feasible. Approval of a request to bypass will be by administrative order issued by the Department under RCW 90.48.120.

G. Operations and Maintenance Manual

With the planned upgrade of the treatment plant anticipated to be completed during the term of this permit, revision of the Operations and Maintenance (O&M) Manual will be necessary. An O&M Manual shall be prepared by the Permittee in accordance with WAC 173-240-080 and be submitted to the Department for approval by June 1, 2009. The manual shall be reflective of the operations and maintenance procedures required for the upgraded treatment plant unit processes and components. In addition to requirements of WAC 173-240-080 (1) through (5), the O&M Manual shall include:

1. Emergency procedures for plant shutdown and cleanup in event of wastewater system upset or failure.
2. Wastewater system maintenance procedures that contribute to the generation of process wastewater.
3. Any directions to maintenance staff when cleaning, or maintaining other equipment or performing other tasks which are necessary to protect the operation of the wastewater system (e.g. defining maximum allowable discharge rate for draining a tank, blocking all floor drains before beginning the overhaul of a stationary engine.)

The approved Operations and Maintenance Manual shall be kept available at the treatment plant and all operators shall follow the instructions and procedures of this manual.

## **S6. PRETREATMENT**

### **A. General Requirements**

The Permittee shall work with the Department to ensure that all commercial and industrial users of the publicly owned treatment works (POTW) are in compliance with the pretreatment regulations promulgated in 40 CFR Part 403 and any additional regulations that may be promulgated under Section 307(b) (pretreatment) and 308 (reporting) of the Federal Clean Water Act.

### **B. Wastewater Discharge Permit Required**

The Permittee shall not allow significant industrial users (SIUs) to discharge waste water to the Permittee's sewerage system until such user has received a wastewater discharge permit from the Department in accordance with Chapter 90.48 RCW and Chapter 173-216 WAC, as amended.

### **C. Identification and Reporting of Existing, New, and Proposed Industrial Users**

1. The Permittee shall take continuous, routine measures to identify all existing, new, and proposed SIUs and potential significant industrial users (PSIUs) discharging or proposing to discharge to the Permittee's sewerage system (see Appendix B of fact sheet for definitions).
2. Within thirty (30) days of becoming aware of an unpermitted existing, new, or proposed industrial user who may be an SIU, the Permittee shall notify such user by registered mail that, if classified as an SIU, they shall be required to apply to the Department and obtain a state waste discharge permit. A copy of this notification letter shall also be sent to the Department within this same thirty (30)-day period.
3. The Permittee shall also notify all PSIUs, as they are identified, that if their classification should change to an SIU, they shall be required to apply to the Department for a state waste discharge permit within thirty (30) days of such change.

### **D. Industrial User Survey**

1. The Permittee shall complete and submit to the Department an Industrial User Survey listing all SIUs and PSIUs discharging to the POTW. The survey shall be received by the Department by July 1, 2009. At a minimum, the list of SIUs and PSIUs shall be developed by means of a telephone book search, a water utility billing records search, and a physical reconnaissance of the service area. Information on PSIUs shall at least include: the business name, telephone number, address, description of the industrial process(es), and the known wastewater volumes and characteristics. For assistance with the development of the Industrial User Survey, the Permittee shall refer to the Department's guidance document entitled "Performing an Industrial User Survey."

E. Duty to Enforce Discharge Prohibitions

1. In accordance with 40 CFR 403.5(a), the Permittee shall not authorize or knowingly allow the discharge of any pollutants into its POTW which cause pass through or interference, or which otherwise violates general or specific discharge prohibitions contained in 40 CFR Part 403.5 or WAC-173-216-060.
2. The Permittee shall not authorize or knowingly allow the introduction of any of the following into their treatment works:
  - a. Pollutants which create a fire or explosion hazard in the POTW (including, but not limited to waste streams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 261.21).
  - b. Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0, or greater than 11.0 standard units, unless the works are specifically designed to accommodate such discharges.
  - c. Solid or viscous pollutants in amounts that could cause obstruction to the flow in sewers or otherwise interfere with the operation of the POTW.
  - d. Any pollutant, including oxygen-demanding pollutants, (BOD, etc.) released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the POTW.
  - e. Petroleum oil, nonbiodegradable cutting oil, or products of mineral origin in amounts that will cause interference or pass through.
  - f. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity which may cause acute worker health and safety problems.
  - g. Heat in amounts that will inhibit biological activity in the POTW resulting in interference but in no case heat in such quantities such that the temperature at the POTW headworks exceeds 40° C (104° F) unless the Department, upon request of the Permittee, approves, in writing, alternate temperature limits.
  - h. Any trucked or hauled pollutants, except at discharge points designated by the Permittee.
  - i. Wastewaters prohibited to be discharged to the POTW by the Dangerous Waste Regulations (Chapter 173-303 WAC), unless authorized under the Domestic Sewage Exclusion (WAC 173-303-071).

3. All of the following are prohibited from discharge to the POTW unless approved in writing by the Department under extraordinary circumstances (such as a lack of direct discharge alternatives due to combined sewer service or the need to augment sewage flows due to septic conditions):
  - a. Noncontact cooling water in significant volumes.
  - b. Stormwater, and other direct inflow sources.
  - c. Wastewaters significantly affecting system hydraulic loading, which do not require treatment, or would not be afforded a significant degree of treatment by the system.
4. The Permittee shall notify the Department if any industrial user violates the prohibitions listed in this section.

## **S7. RESIDUAL SOLIDS**

Residual solids include screenings, grit, scum, primary sludge, waste activated sludge, and other solid waste. The Permittee shall store and handle all residual solids in such a manner so as to prevent their entry into state ground or surface waters. The Permittee shall not discharge leachate from residual solids to state surface or ground waters.

## **S8. EFFLUENT MIXING STUDY**

### **A. General Requirements**

The Permittee shall determine the degree of effluent and receiving water mixing which occurs within the mixing zone (as defined in permit Condition S1.B) for the new outfall. The degree of mixing shall be determined during critical conditions, as defined in WAC 173-201A-020 Definitions - "Critical Condition," or as close to critical conditions as reasonably possible.

The critical condition scenarios shall be established in accordance with *Guidance for Conducting Mixing Zone Analyses* (Ecology, 1996). The dilution ratio shall be measured in the field with dye using study protocols specified in the *Guidance*, Section 5.0 "Conducting a Dye Study," as well as other protocols listed in subpart C Protocols. The use of mixing models is an acceptable alternative or adjunct to a dye study if the critical ambient conditions necessary for model input are known or will be established with field studies; and if the diffuser is visually inspected for integrity or has been recently tested for performance by the use of tracers. The *Guidance* mentioned above shall be consulted when choosing the appropriate model. The use of models is also required if critical condition scenarios that need to be examined are quite different from the set of conditions present during the dye study.

Validation (and possibly calibration) of a model may be necessary and shall be done in accordance with the *Guidance* mentioned above, in particular, Subsection 5.2 “Quantify Dilution.” The resultant dilution ratios for acute and chronic boundaries shall be applied in accordance with directions found in Ecology’s *Permit Writer’s Manual* (2004), in particular, Chapter VI.

The mixing zone study shall be conducted during the summer following the completion of Phase 1 of the treatment plant upgrade, no later than September 15, 2009. A Plan of Study shall be submitted to the Department for review thirty (30) days prior to initiation of the effluent mixing study.

B. Reporting Requirements

If the Permittee has information on the background physical conditions or background concentration of chemical substances (for which there are criteria in Chapter 173-201A WAC) in the receiving water, this information shall be submitted to the Department as part of the Effluent Mixing Report.

The results of the effluent mixing study shall be included in the Effluent Mixing Report, which shall be submitted to the Department for approval no later than March 1, 2010.

If the results of the mixing study, toxicity tests, and chemical analysis indicate that the concentration of any pollutant(s) exceeds or has a reasonable potential to exceed the state water quality standards, Chapter 173-201A WAC, the Department may issue a regulatory order to require a reduction of pollutants or modify this permit to impose effluent limitations to meet the water quality standards.

The Permittee shall use some method of fixing and reporting the location of the outfall and mixing zone boundaries (i.e., triangulation off the shore, microwave navigation system, or using Loran or Global Positioning System (GPS) coordinates). The method of fixing station location and the actual station locations shall be identified in the report.

C. Protocols

The Permittee shall determine the dilution ratio using protocols outlined in the following references, approved modifications thereof, or by another method approved by the Department:

- Akar, P.J. and G.H. Jirka, *Cormix2: An Expert System for Hydrodynamic Mixing Zone Analysis of Conventional and Toxic Multiport Diffuser Discharges*, USEPA Environmental Research Laboratory, Athens, GA, Draft, July 1990.
- Baumgartner, D.J., W.E. Frick, P.J.W. Roberts, and C.A. Bodeen, *Dilution Models for Effluent Discharges*, USEPA, Pacific Ecosystems Branch, Newport, OR, 1993.
- Doneker, R.L. and G.H. Jirka, *Cormix1: An Expert System for Hydrodynamic Mixing Zone Analysis of Conventional and Toxic Submerged Single Port Discharges*, USEPA, Environmental Research Laboratory, Athens, GA, EPA/600-3-90/012, 1990.

- Ecology, *Permit Writer's Manual*, Water Quality Program, Department of Ecology, Olympia, WA 98504, July 2004, including most current addenda.
- Ecology, *Guidance for Conducting Mixing Zone Analyses*, Permit Writer's Manual, (Appendix 6.1), Water Quality Program, Department of Ecology, Olympia, WA 98504, October 1996.
- Kilpatrick, F.A., and E.D. Cobb, Measurement of Discharge Using Tracers, Chapter A16, *Techniques of Water-Resources Investigations of the USGS, Book 3, Application of Hydraulics*, USGS, U.S. Department of the Interior, Reston, VA 1985.
- Wilson, J.F., E.D. Cobb, and F.A. Kilpatrick, Fluorometric Procedures for Dye Tracing, Chapter A12, *Techniques of Water-Resources Investigations of the USGS, Book 3, Application of Hydraulics*, USGS, U.S. Department of the Interior, Reston, VA 1986.

## S9. ACUTE TOXICITY

### A. Effluent Characterization

The Permittee shall conduct acute toxicity testing on the final effluent to determine the presence and amount of acute (lethal) toxicity. The two acute toxicity tests listed below shall be conducted on each sample taken for effluent characterization.

Effluent characterization for acute toxicity shall be conducted biannually for one year. Acute toxicity testing shall follow protocols, monitoring requirements, and quality assurance/quality control procedures specified in this section. A dilution series consisting of a minimum of five concentrations and a control shall be used to estimate the concentration lethal to 50% of the organisms (LC<sub>50</sub>). The percent survival in 100% effluent shall also be reported. The dilution series shall be based on dilution factors predicted for outfall #004.

The first round of testing shall begin no later than January 1, 2006. A written report summarizing the findings of the first round of testing shall be submitted to the Department no later than March 1, 2006. The second round of testing shall begin no later than August 1, 2006, with a written report to be submitted by October 1, 2006.

Acute toxicity tests shall be conducted with the following species and protocols:

1. Fathead minnow, *Pimephales promelas* (96-hour static-renewal test, method: EPA/600/4-90/027F).
2. Daphnid, *Ceriodaphnia dubia*, *Daphnia pulex*, or *Daphnia magna* (48-hour static test, method: EPA/600/4-90/027F). The Permittee shall choose one of the three species and use it consistently throughout effluent characterization.

B. Effluent Limit for Acute Toxicity

The Permittee has an effluent limit for acute toxicity if, after completing one year of effluent characterization, either:

- (1) The median survival of any species in 100% effluent is below 80%, or
- (2) Any one test of any species exhibits less than 65% survival in 100% effluent.

If an effluent limit for acute toxicity is required by Subsection B at the end of one year of effluent characterization, the Permittee shall immediately complete all applicable requirements in Subsections C, D, and F.

If no effluent limit is required by Subsection B at the end of one year of effluent characterization, then the Permittee shall complete all applicable requirements in Subsections E and F.

**The effluent limit for acute toxicity is no acute toxicity detected in a test concentration representing the acute critical effluent concentration (ACEC).**

In the event of failure to pass the test described in Subsection C of this section for compliance with the effluent limit for acute toxicity, the Permittee is considered to be in compliance with all permit requirements for acute whole effluent toxicity as long as the requirements in Subsection D are being met to the satisfaction of the Department.

The ACEC means the maximum concentration of effluent during critical conditions at the boundary of the zone of acute criteria exceedance assigned pursuant to WAC 173-201A-100. The zone of acute criteria exceedance for outfall #004 is authorized in Section S.1.B of this permit. The ACEC equals 6.25% effluent.

C. Monitoring for Compliance With an Effluent Limit for Acute Toxicity

Monitoring to determine compliance with the effluent limit shall be conducted quarterly for the remainder of the permit term using each of the species listed in Subsection A on a rotating basis and performed using at a minimum 100% effluent, the ACEC, and a control. The Permittee shall schedule the toxicity tests in the order listed in the permit unless the Department notifies the Permittee in writing of another species rotation schedule. The percent survival in 100% effluent shall be reported for all compliance monitoring.

Compliance with the effluent limit for acute toxicity means no statistically significant difference in survival between the control and the test concentration representing the ACEC. The Permittee shall immediately implement Subsection D if any acute toxicity test conducted for compliance monitoring determines a statistically significant difference in survival between the control and the ACEC using hypothesis testing at the 0.05 level of significance (Appendix H, EPA/600/4-89/001). If the difference in survival between the control and the ACEC is less than 10%, the hypothesis test shall be conducted at the 0.01 level of significance.



D. Response to Noncompliance With an Effluent Limit for Acute Toxicity

If the Permittee violates the acute toxicity limit in Subsection B, the Permittee shall begin additional compliance monitoring within one week from the time of receiving the test results. This additional monitoring shall be conducted weekly for four consecutive weeks using the same test and species as the failed compliance test. Testing shall determine the LC<sub>50</sub> and effluent limit compliance. The discharger shall return to the original monitoring frequency in Subsection C after completion of the additional compliance monitoring.

If the Permittee believes that a test indicating noncompliance will be identified by the Department as an anomalous test result, the Permittee may notify the Department that the compliance test result might be anomalous and that the Permittee intends to take only one additional sample for toxicity testing and wait for notification from the Department before completing the additional monitoring required in this subsection. The notification to the Department shall accompany the report of the compliance test result and identify the reason for considering the compliance test result to be anomalous. The Permittee shall complete all of the additional monitoring required in this subsection as soon as possible after notification by the Department that the compliance test result was not anomalous. If the one additional sample fails to comply with the effluent limit for acute toxicity, then the Permittee shall proceed without delay to complete all of the additional monitoring required in this subsection. The one additional test result shall replace the compliance test result upon determination by the Department that the compliance test result was anomalous.

If all of the additional compliance monitoring conducted in accordance with this subsection complies with the permit limit, the Permittee shall search all pertinent and recent facility records (operating records, monitoring results, inspection records, spill reports, weather records, production records, raw material purchases, pretreatment records, etc.) and submit a report to the Department on possible causes and preventive measures for the transient toxicity event which triggered the additional compliance monitoring.

If toxicity occurs in violation of the acute toxicity limit during the additional compliance monitoring, the Permittee shall submit a Toxicity Identification/Reduction Evaluation (TI/RE) plan to the Department. The TI/RE plan submittal shall be within sixty (60) days after the sample date for the fourth additional compliance monitoring test. If the Permittee decides to forgo the rest of the additional compliance monitoring tests required in this subsection because one of the first three additional compliance monitoring tests failed to meet the acute toxicity limit, then the Permittee shall submit the TI/RE plan within sixty (60) days after the sample date for the first additional monitoring test to violate the acute toxicity limit. The TI/RE plan shall be based on WAC 173-205-100(2) and shall be implemented in accordance with WAC 173-205-100(3).

E. Monitoring When There Is No Permit Limit for Acute Toxicity

The Permittee shall test final effluent once in the last summer and once in the last winter prior to submission of the application for permit renewal. Summer testing shall be conducted within the timeframe of June 1, 2009, and August 25, 2009. Winter testing shall be conducted within the timeframe of December 1, 2009, and February 25, 2010.

Characterization data from the two tests shall be submitted with the Permittee's application for permit renewal. All species used in the initial acute effluent characterization or substitutes approved by the Department shall be used and results submitted to the Department as a part of the permit renewal application process.

F. Sampling and Reporting Requirements

1. All reports for effluent characterization or compliance monitoring shall be submitted in accordance with the most recent version of Department of Ecology Publication #WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria* in regards to format and content. Reports shall contain bench sheets and reference toxicant results for test methods. If the lab provides the toxicity test data on floppy disk for electronic entry into the Department's database, then the Permittee shall send the disk to the Department along with the test report, bench sheets, and reference toxicant results.
2. Testing shall be conducted on 24-hour composite effluent samples. Composite samples taken for toxicity testing shall be cooled to 4 degrees Celsius while being collected and shall be sent to the lab immediately upon completion. All samples must be below 8° C at receipt. The lab shall begin the toxicity testing as soon as possible but no later than 36 hours after sampling was ended. The lab shall store all samples at 4° C in the dark from receipt until completion of the test.
3. All samples and test solutions for toxicity testing shall have water quality measurements as specified in Department of Ecology Publication #WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria* or most recent version thereof.
4. All toxicity tests shall meet quality assurance criteria and test conditions in the most recent versions of the EPA manual listed in Subsection A and the Department of Ecology Publication #WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. If test results are determined to be invalid or anomalous by the Department, testing shall be repeated with freshly collected effluent.
5. Control water and dilution water shall be laboratory water meeting the requirements of the EPA manual listed in Subsection A or pristine natural water of sufficient quality for good control performance.
6. The whole effluent toxicity tests shall be run on an unmodified sample of final effluent.
7. The Permittee may choose to conduct a full dilution series test during compliance monitoring in order to determine dose response. In this case, the series must have a minimum of five effluent concentrations and a control. The series of concentrations must include the ACEC.

8. All whole effluent toxicity tests, effluent screening tests, and rapid screening tests that involve hypothesis testing, and do not comply with the acute statistical power standard of 29% as defined in WAC 173-205-020, must be repeated on a fresh sample with an increased number of replicates to increase the power.

## **S10. CHRONIC TOXICITY**

### **A. Effluent Characterization**

The Permittee shall conduct chronic toxicity testing on the final effluent. The two chronic toxicity tests listed below shall be conducted on each sample taken for effluent characterization.

The first round of testing shall begin no later than January 1, 2006. A written report summarizing the findings of the first round of testing shall be submitted to the Department no later than March 1, 2006. The second round of testing shall begin no later than August 1, 2006, with a written report to be submitted by October 1, 2006.

Effluent testing for chronic toxicity shall be conducted biannually for one year. The Permittee shall conduct chronic toxicity testing during effluent characterization on a series of at least five concentrations of effluent in order to determine appropriate point estimates. This series of dilutions shall be representative of mixing provided by outfall #004 and shall include the ACEC of 6.25% effluent and the CCEC of 0.5% effluent. The Permittee shall compare the ACEC to the control using hypothesis testing at the 0.05 level of significance as described in Appendix H, EPA/600/4-89/001.

Chronic toxicity tests shall be conducted with the following two species and the most recent version of the following protocols:

Freshwater Chronic Toxicity Test Species		Method
Fathead minnow	<i>Pimephales promelas</i>	EPA/600/4-91/002
Water flea	<i>Ceriodaphnia dubia</i>	EPA/600/4-91/002

### **B. Effluent Limit for Chronic Toxicity**

After completion of effluent characterization, the Permittee has an effluent limit for chronic toxicity if any test conducted for effluent characterization shows a significant difference between the control and the ACEC at the 0.05 level of significance using hypothesis testing (Appendix H, EPA/600/4-89/001) and shall complete all applicable requirements in Subsections C, D, and F.

If no significant difference is shown between the ACEC and the control in any of the chronic toxicity tests, the Permittee has no effluent limit for chronic toxicity and only Subsections E and F apply.

**The effluent limit for chronic toxicity is no toxicity detected in a test concentration representing the chronic critical effluent concentration (CCEC).**

In the event of failure to pass the test described in Subsection C, of this section, for compliance with the effluent limit for chronic toxicity, the Permittee is considered to be in compliance with all permit requirements for chronic whole effluent toxicity as long as the requirements in Subsection D are being met to the satisfaction of the Department.

The CCEC means the maximum concentration of effluent allowable at the boundary of the mixing zone assigned in Section S.1.B pursuant to WAC 173-201A-100. The CCEC equals 0.5% effluent.

C. Monitoring for Compliance With an Effluent Limit for Chronic Toxicity

Monitoring to determine compliance with the effluent limit shall be conducted quarterly for the remainder of the permit term using each of the species listed in Subsection A on a rotating basis and performed using at a minimum the CCEC, the ACEC, and a control. The Permittee shall schedule the toxicity tests in the order listed in the permit unless the Department notifies the Permittee in writing of another species rotation schedule.

Compliance with the effluent limit for chronic toxicity means no statistically significant difference in response between the control and the test concentration representing the CCEC. The Permittee shall immediately implement Subsection D if any chronic toxicity test conducted for compliance monitoring determines a statistically significant difference in response between the control and the CCEC using hypothesis testing at the 0.05 level of significance (Appendix H, EPA/600/4-89/001). If the difference in response between the control and the CCEC is less than 20%, the hypothesis test shall be conducted at the 0.01 level of significance.

In order to establish whether the chronic toxicity limit is eligible for removal from future permits, the Permittee shall also conduct this same hypothesis test (Appendix H, EPA/600/4-89/001) to determine if a statistically significant difference in response exists between the ACEC and the control.

D. Response to Noncompliance With an Effluent Limit for Chronic Toxicity

If a toxicity test conducted for compliance monitoring under Subsection C determines a statistically significant difference in response between the CCEC and the control, the Permittee shall begin additional compliance monitoring within one week from the time of receiving the test results. This additional monitoring shall be conducted monthly for three consecutive months using the same test and species as the failed compliance test. Testing shall be conducted using a series of at least five effluent concentrations and a control in order to be able to determine appropriate point estimates. One of these effluent concentrations shall equal the CCEC and be compared statistically to the nontoxic control in order to determine compliance with the effluent limit for chronic toxicity as described in Subsection C. The discharger shall return to the original monitoring frequency in Subsection C after completion of the additional compliance monitoring.

If the Permittee believes that a test indicating noncompliance will be identified by the Department as an anomalous test result, the Permittee may notify the Department that the compliance test result might be anomalous and that the Permittee intends to take only one additional sample for toxicity testing and wait for notification from the Department before completing the additional monitoring required in this subsection. The notification to the Department shall accompany the report of the compliance test result and identify the reason for considering the compliance test result to be anomalous. The Permittee shall complete all of the additional monitoring required in this subsection as soon as possible after notification by the Department that the compliance test result was not anomalous. If the one additional sample fails to comply with the effluent limit for chronic toxicity, then the Permittee shall proceed without delay to complete all of the additional monitoring required in this subsection. The one additional test result shall replace the compliance test result upon determination by the Department that the compliance test result was anomalous.

If all of the additional compliance monitoring conducted in accordance with this subsection complies with the permit limit, the Permittee shall search all pertinent and recent facility records (operating records, monitoring results, inspection records, spill reports, weather records, production records, raw material purchases, pretreatment records, etc.) and submit a report to the Department on possible causes and preventive measures for the transient toxicity event which triggered the additional compliance monitoring.

If toxicity occurs in violation of the chronic toxicity limit during the additional compliance monitoring, the Permittee shall submit a Toxicity Identification/Reduction Evaluation (TI/RE) plan to the Department. The TI/RE plan submittal shall be within sixty (60) days after the sample date for the third additional compliance monitoring test. If the Permittee decides to forgo the rest of the additional compliance monitoring tests required in this subsection because one of the first two additional compliance monitoring tests failed to meet the chronic toxicity limit, then the Permittee shall submit the TI/RE plan within sixty (60) days after the sample date for the first additional monitoring test to violate the chronic toxicity limit. The TI/RE plan shall be based on WAC 173-205-100(2) and shall be implemented in accordance with WAC 173-205-100(3).

E. Monitoring When There Is No Permit Limit for Chronic Toxicity

The Permittee shall test final effluent once in the last summer and once in the last winter prior to submission of the application for permit renewal. Summer testing shall be conducted within the timeframe of April 1, 2009, and May 25, 2009. Winter testing shall be conducted within the timeframe of October 1, 2009, and November 25, 2009. Characterization data from the two tests shall be submitted with the Permittee's application for permit renewal. All species used in the initial chronic effluent characterization or substitutes approved by the Department shall be used and results submitted to the Department as a part of the permit renewal application process.

F. Sampling and Reporting Requirements

1. All reports for effluent characterization or compliance monitoring shall be submitted in accordance with the most recent version of Department of Ecology Publication #WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria* in regards to format and content. Reports shall contain bench sheets and reference toxicant results for test methods. If the lab provides the toxicity test data on floppy disk for electronic entry into the Department's database, then the Permittee shall send the disk to the Department along with the test report, bench sheets, and reference toxicant results.
2. Testing shall be conducted on 24-hour composite effluent samples. Composite samples taken for toxicity testing shall be cooled to 4 degrees Celsius while being collected and shall be sent to the lab immediately upon completion. All samples must be below 8° C at receipt. The lab shall begin the toxicity testing as soon as possible but no later than 36 hours after sampling was ended. The lab shall store all samples at 4° C in the dark from receipt until completion of the test.
3. All samples and test solutions for toxicity testing shall have water quality measurements as specified in Department of Ecology Publication #WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria* or most recent version thereof.
4. All toxicity tests shall meet quality assurance criteria and test conditions in the most recent versions of the EPA manual listed in Subsection A and the Department of Ecology Publication #WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. If test results are determined to be invalid or anomalous by the Department, testing shall be repeated with freshly collected effluent.
5. Control water and dilution water shall be laboratory water meeting the requirements of the EPA manual listed in Subsection A or pristine natural water of sufficient quality for good control performance.
6. The whole effluent toxicity tests shall be run on an unmodified sample of final effluent.
7. The Permittee may choose to conduct a full dilution series test during compliance monitoring in order to determine dose response. In this case, the series must have a minimum of five effluent concentrations and a control. The series of concentrations must include the ACEC and the CCEC.
8. All whole effluent toxicity tests, effluent screening tests, and rapid screening tests that involve hypothesis testing, and do not comply with the chronic statistical power standard of 39% as defined in WAC 173-205-020, must be repeated on a fresh sample with an increased number of replicates to increase the power.

## **S11. SEDIMENT MONITORING (OUTFALL #001)**

### **A. Sediment Sampling and Analysis Plan**

The Permittee shall submit to the Department for review and approval a Sediment Sampling and Analysis Plan for sediment monitoring no later than December 1, 2006, after permit effective date. The purpose of the plan is to characterize sediment quality in the vicinity of outfall #001 (note: sediment characterization has already been completed in the vicinity of the outfall #004's proposed location). The Permittee shall follow the guidance provided in the Sediment Source Control Standards User Manual, Appendix B: Sediment Sampling and Analysis Plan (Ecology, 1995).

### **B. Sediment Data Report**

Following Department approval of the Sediment Sampling and Analysis Plan, sediments will be collected and analyzed. The Permittee shall submit to the Department a Sediment Data Report containing the results of the sediment sampling and analysis no later than December 1, 2007. The Sediment Data Report shall conform with the approved Sediment Sampling and Analysis Plan.

## **S12. COMBINED SEWER OVERFLOWS**

### **A. Discharge Locations**

The following is a list of combined sewer overflows (CSOs), which are occasional point sources of pollutants as a result of precipitation events. Discharges from these sites are prohibited except as a result of and during precipitation events. No authorization is given by this permit for discharge from a CSO that causes adverse impacts that threaten characteristic uses of the receiving water as identified in the water quality standards, Chapter 173-201A WAC.

DISCHARGE NO.	LOCATION	RECEIVING WATER
Outfall #002 (Park Street)	Latitude: 48° 24' 50" N Longitude: 122° 20' 36" W	Skagit River
Outfall #003 (Division Street)	Latitude: 48° 25' 17" N Longitude: 122° 20' 15" W	Skagit River

### **B. Combined Sewer Overflow Monitoring and Annual Report**

The Permittee shall submit an annual CSO Report covering the previous calendar year to the Department by April 1, 2006, and annually thereafter, that complies with the requirements of WAC 173-245-090(1):

1. Detail the past year's frequency and volume of combined sewage discharged from each CSO discharge site.

2. Explain the CSO reduction accomplishments of the previous year.
3. List the projects associated with CSO reduction planned for the next year.
4. If there is an increase in the annual baseline volume or frequency of CSO discharges, then the City shall propose a project and schedule to reduce that CSO site or group of sites to or below the baseline condition.
5. Measures taken to ensure compliance with EPA's recommended nine minimum controls for CSO systems.

At least once per year, the Permittee shall obtain time-paced composite samples that are representative of the long-duration CSO discharge(s) to estimate BOD<sub>5</sub> and TSS levels of those discharges at the three different overflow points in the CSO storage system. Sampling is only required for those overflow points that actually do overflow. At least once per year, the Permittee shall obtain grab samples from the Skagit River to estimate the fecal coliform bacteria levels upstream and downstream of the CSO outfalls. This sampling of the Skagit River shall only be required for overflow episodes that occur during daylight hours on weekdays. Results of this monitoring shall be submitted with the annual CSO report.

The Permittee shall maintain a current CSO sampling plan that explains how these monitoring and characterization requirements are met. The Permittee shall update or revise the sampling plan as necessary or if requested by the Department.

C. Combined Sewer Overflow Reduction Plan Amendment

In conjunction with the application for renewal of this permit, the Permittee shall submit an amendment of its CSO Reduction Plan to the Department for review and approval. The amendment shall comply with the requirements of WAC 173-245-090(2).

D. Compliance Schedule

The Permittee shall continue with planning, engineering, and construction efforts to comply with the provisions of Order On Consent No. 96WQ-N105 and reduce the frequency of CSO events to an average of no more than one per year no later than January 1, 2015.



## GENERAL CONDITIONS

### G1. SIGNATORY REQUIREMENTS

All applications, reports, or information submitted to the Department shall be signed and certified.

- A. All permit applications shall be signed by either a principal executive officer or a ranking elected official.
- B. All reports required by this permit and other information requested by the Department shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - 1. The authorization is made in writing by a person described above and submitted to the Department.
  - 2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)
- C. Changes to authorization. If an authorization under paragraph B.2, above, is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph B.2, above, must be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.
- D. Certification. Any person signing a document under this section shall make the following certification:

*“I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”*

## **G2. RIGHT OF INSPECTION AND ENTRY**

The Permittee shall allow an authorized representative of the Department, upon the presentation of credentials and such other documents as may be required by law:

- A. To enter upon the premises where a discharge is located or where any records must be kept under the terms and conditions of this permit.
- B. To have access to and copy - at reasonable times and at reasonable cost - any records required to be kept under the terms and conditions of this permit.
- C. To inspect - at reasonable times - any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required under this permit.
- D. To sample or monitor - at reasonable times - any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act.

## **G3. PERMIT ACTIONS**

This permit may be modified, revoked and reissued, or terminated either at the request of any interested person (including the Permittee) or upon the Department's initiative. However, the permit may only be modified, revoked and reissued, or terminated for the reasons specified in 40 CFR 122.62, 122.64 or WAC 173-220-150 according to the procedures of 40 CFR 124.5.

- A. The following are causes for terminating this permit during its term, or for denying a permit renewal application:
  - 1. Violation of any permit term or condition.
  - 2. Obtaining a permit by misrepresentation or failure to disclose all relevant facts.
  - 3. A material change in quantity or type of waste disposal.
  - 4. A determination that the permitted activity endangers human health or the environment, or contributes to water quality standards violations and can only be regulated to acceptable levels by permit modification or termination [40 CFR Part 122.64(3)].
  - 5. A change in any condition that requires either a temporary or permanent reduction, or elimination of any discharge or sludge use or disposal practice controlled by the permit [40 CFR Part 122.64(4)].
  - 6. Nonpayment of fees assessed pursuant to RCW 90.48.465.
  - 7. Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090.

B. The following are causes for modification but not revocation and reissuance except when the Permittee requests or agrees:

1. A material change in the condition of the waters of the state.
2. New information not available at the time of permit issuance that would have justified the application of different permit conditions.
3. Material and substantial alterations or additions to the permitted facility or activities which occurred after this permit issuance.
4. Promulgation of new or amended standards or regulations having a direct bearing upon permit conditions, or requiring permit revision.
5. The Permittee has requested a modification based on other rationale meeting the criteria of 40 CFR Part 122.62.
6. The Department has determined that good cause exists for modification of a compliance schedule, and the modification will not violate statutory deadlines.
7. Incorporation of an approved local pretreatment program into a municipality's permit.

C. The following are causes for modification or alternatively revocation and reissuance:

1. Cause exists for termination for reasons listed in A1 through A7 of this section, and the Department determines that modification or revocation and reissuance is appropriate.
2. The Department has received notification of a proposed transfer of the permit. A permit may also be modified to reflect a transfer after the effective date of an automatic transfer (General Condition G8) but will not be revoked and reissued after the effective date of the transfer except upon the request of the new permittee.

#### **G4. REPORTING PLANNED CHANGES**

The Permittee shall, as soon as possible, but no later than sixty (60) days prior to the proposed changes, give notice to the Department of planned physical alterations or additions to the permitted facility, production increases, or process modification which will result in:

- 1) the permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b);
- 2) a significant change in the nature or an increase in quantity of pollutants discharged; or
- 3) a significant change in the Permittee's sludge use or disposal practices.

Following such notice, and the submittal of a new application or supplement to the existing application, along with required engineering plans and reports, this permit may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation of the terms and conditions of this permit.

## **G5. PLAN REVIEW REQUIRED**

Prior to constructing or modifying any wastewater control facilities, an engineering report and detailed plans and specifications shall be submitted to the Department for approval in accordance with Chapter 173-240 WAC. Engineering reports, plans, and specifications shall be submitted at least one hundred eighty (180) days prior to the planned start of construction unless a shorter time is approved by Ecology. Facilities shall be constructed and operated in accordance with the approved plans.

## **G6. COMPLIANCE WITH OTHER LAWS AND STATUTES**

Nothing in this permit shall be construed as excusing the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

## **G7. DUTY TO REAPPLY**

The Permittee shall apply for permit renewal at least one hundred eighty (180) days prior to the specified expiration date of this permit.

## **G8. TRANSFER OF THIS PERMIT**

In the event of any change in control or ownership of facilities from which the authorized discharge emanate, the Permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Department.

### **A. Transfers by Modification**

Except as provided in paragraph (B) below, this permit may be transferred by the Permittee to a new owner or operator only if this permit has been modified or revoked and reissued under 40 CFR 122.62(b)(2), or a minor modification made under 40 CFR 122.63(d), to identify the new Permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

### **B. Automatic Transfers**

This permit may be automatically transferred to a new permittee if:

1. The Permittee notifies the Department at least thirty (30) days in advance of the proposed transfer date.
2. The notice includes a written agreement between the existing and new Permittees containing a specific date transfer of permit responsibility, coverage, and liability between them.
3. The Department does not notify the existing Permittee and the proposed new Permittee of its intent to modify or revoke and reissue this permit. A modification under this subparagraph may also be minor modification under 40 CFR 122.63. If this notice is not received, the transfer is effective on the date specified in the written agreement.

#### **G9. REDUCED PRODUCTION FOR COMPLIANCE**

The Permittee, in order to maintain compliance with its permit, shall control production and/or all discharges upon reduction, loss, failure, or bypass of the treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

#### **G10. REMOVED SUBSTANCES**

Collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall not be resuspended or reintroduced to the final effluent stream for discharge to state waters.

#### **G11. DUTY TO PROVIDE INFORMATION**

The Permittee shall submit to the Department, within a reasonable time, all information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee shall also submit to the Department upon request, copies of records required to be kept by this permit.

#### **G12. OTHER REQUIREMENTS OF 40 CFR**

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

#### **G13. ADDITIONAL MONITORING**

The Department may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

#### **G14. PAYMENT OF FEES**

The Permittee shall submit payment of fees associated with this permit as assessed by the Department.

#### **G15. PENALTIES FOR VIOLATING PERMIT CONDITIONS**

Any person who is found guilty of willfully violating the terms and conditions of this permit shall be deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to ten thousand dollars (\$10,000) and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit shall incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars (\$10,000) for every such violation. Each and every such violation shall be a separate and distinct offense, and in case of a continuing violation, every day's continuance shall be deemed to be a separate and distinct violation.

## **G16. UPSET**

Definition – “Upset” means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of the following paragraph are met.

A Permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- 1) an upset occurred and that the Permittee can identify the cause(s) of the upset;
- 2) the permitted facility was being properly operated at the time of the upset;
- 3) the Permittee submitted notice of the upset as required in Condition S3.E; and
- 4) the Permittee complied with any remedial measures required under S4.C of this permit.

In any enforcement proceeding, the Permittee seeking to establish the occurrence of an upset has the burden of proof.

## **G17. PROPERTY RIGHTS**

This permit does not convey any property rights of any sort, or any exclusive privilege.

## **G18. DUTY TO COMPLY**

The Permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

## **G19. TOXIC POLLUTANTS**

The Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

## **G20. PENALTIES FOR TAMPERING**

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two (2) years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this Condition, punishment shall be a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four (4) years, or by both.

**G21. REPORTING ANTICIPATED NONCOMPLIANCE**

The Permittee shall give advance notice to the Department by submission of a new application or supplement thereto at least one hundred eighty (180) days prior to commencement of such discharges, of any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility or activity which may result in noncompliance with permit limits or conditions. Any maintenance of facilities, which might necessitate unavoidable interruption of operation and degradation of effluent quality, shall be scheduled during noncritical water quality periods and carried out in a manner approved by the Department.

**G22. REPORTING OTHER INFORMATION**

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to the Department, it shall promptly submit such facts or information.

**G23. COMPLIANCE SCHEDULES**

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each schedule date.